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ACADEMIC PROCRASTINATION SCALE: CONSTRUCTION AND STANDARDIZATION

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ABSTRACT

The research paper deals with the construction and standardization of Academic Procrastination Scale for secondary school students of Punjab. At initial stage, 67 statements covering six facets of academic procrastination were tentatively framed. Later on, number of items was reduced to 65 after thoroughly survey & carefully scrutinized by the subject experts. Further, item-analysis was carried out to finalize items. Lastly, a set of 45 items were retained for the final scale out of which 34 positive and 11 negative items. The test-retest reliability was found to be 0.84, whereas Cronbach's coefficient alpha was 0.86. the content validity of the scale was assured from subject experts.

KEYWORDS: Procrastination, Scale, Young, Validity, Reliability.

INTRODUCTION

Procrastination, generally out, is the practice of carrying out less urgent tasks in preference to more urgently ones, or doing more pleasurable things in place of less pleasurable ones and thus putting off impending tasks to a later time. In order for behaviour to be classified as procrastination: It must be counterproductive, needless and delaying. Similarly, it is to voluntarily delay an intended course of action despite expecting to be worse off for the delay. Procrastination, as described by Schraw, Wadkins, and Olafson, is a common and harmful kind of self-control failure that is little understood. It's described as putting off or delaying chores that need to be accomplished. Procrastinators are thought to account for 15 to 20% of the overall population. Other experts feel that procrastinators lack confidence in them and have a lower expectation of completing a task. Task aversion, impulsivity, distractibility, and how driven a person is to accomplish things are all predictors of procrastination. Not all delays are deemed procrastination; the essential thing is that a person must feel it would be preferable to begin working on assigned duties right away, but yet refuses to do so.

Operational Definition

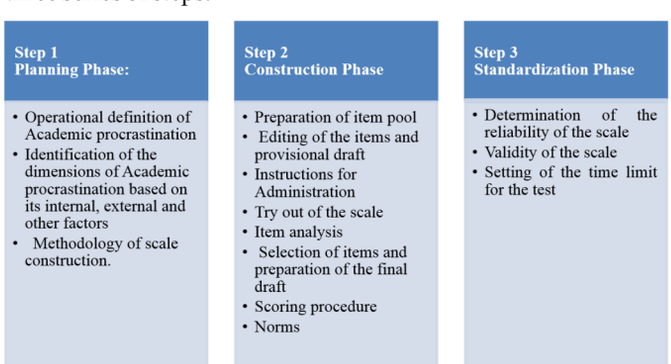
Academic procrastination operationally defined as "delaying of completing a task not intentionally but due to some needless and unavoidable chance/factors/circumstances."

Need of construction

After thoroughly reviewing already existing scales, it was clear that no measure can be flexibly used in multiple contexts such as everyday life, academic and organizational settings. Even existing scales do not meet the methodological criteria set for research, also not according to Indian context. A major shortcoming that was observed most of the scales were developed to measure the academic procrastination of college level students and no scales used to measure at senior secondary level. Therefore, we have a need to construct tool to measure the reasons behind procrastination among secondary school students which must be acc to the Indian context.

The present scale has been constructed on the basis of Likert's (1932) technique of "Summated Rating" for ascertaining the responses on the scale which is one of the most widely used scale for the collection of data in the field of behavioural science studies particularly related with surveying and descriptive studies. Most popular form of Likert scale which is frequently used for research purposes is five-point rating scale which includes a continuum of alternative responses, which may range from strongly agree to strongly disagree. Scoring is accomplished by assigning numerical weights of 1 through 5 to each category, such that 5 represent the most favourable response and 1 the least favourable. Total Academic Procrastination scale is sum total of all the dimensions.

Scale construction process included a series of systematic steps, viz, items selection & phrasing questionnaire. conducting item analysis and establishing the reliability as well as validity of the scale developed. The process of scale construction involved three series of steps.



Planning Phase:

Identification of the dimensions of Academic procrastination

Already existing tools were carefully explored and numerous literatures like journals, books, web sources researcher were studied. Also, discussions were held with the various subject experts to seek their views to plan an appropriately good scale for assessment of level of Academic Procrastination among senior secondary school students. Eventually six unique facets

of academic procrastination i.e., Psychological beliefs regarding abilities, Distractions/diversions of consideration, social factors regarding procrastination, Time management, Personal initiative, Laziness were identified as the factor leading to Academic Procrastination among the students.

S. No.	Name of the expert	Designation
1.	Dr. Harneet Billing	Assistant Professor at Sri Guru Granth Sahib World University, Fatehgarh Sahib
2.	Dr. Gurmeet Singh	Associate Professor, Malwa Central College of Education for Women, Ludhiana
3.	Dr. Kulwinder Singh	Professor at Department of Education and Community Service at Punjabi University, Patiala.
4.	Dr. Khushwant Kaur	Assistant Professor, SDS College of Education for Women, Lopon
5.	Dr. Suman Kaur	Assistant Professor at Sri Guru Granth Sahib World University, Fatehgarh Sahib
6.	Dr. Gagandeep Kaur	Assistant Professor at Sri Guru Granth Sahib World University, Fatehgarh Sahib

Table 1: List of experts approached for scale construction.

Construction Phase

Preparation of item pool:

Keeping in the view the construct, A large number of items of the tool on tentative basis were framed on the basis of relevant review, information gathered from experts. Later on, for the preliminary draft, 67 statements covering six facets of academic procrastination were tentatively framed. Expert advice and discussion with senior secondary school teachers and students were taken for the same.

Editing of the items and provisional draft:

The pool of statements was reviewed and edited in accordance with the guidelines suggested by Wang (1932), Likert (1932), Edwards and Kilpatrick (1948). The first draft of Academic Procrastination having 67 items that was given to experts. The statement for each item was carefully scrutinized by the supervisors for the grammatical errors, repetitiveness and ambiguity and the investigator to eliminate any biasness and ambiguity. Suggestions given by the experts were incorporated & items were modified in order to have an adequate measure of each of the dimension of academic procrastination in which the investigator was interested. All the experts were personally requested to undergo serious reflection over every statement and to indicate how the statements were relatively close to the connotation in question. Every expert was asked for whether each of the items was accepted, rejected or required modification.

After the review of first draft requisite modifications were done so as to have items giving adequate measure of Academic Procrastination. In this way, 65 items were finalized for the first draft. (Table: 2)

Sr. No.	Classification of areas	No. of Statements			Item No.
		Positive	Negative	Total	
1	Academic Procrastination due to students psychological beliefs regarding abilities	1, 2, 3, 4, 5, 7, 8, 9, 11, 12	6, 10	12	1-12
2	Academic Procrastination due to students Distractions / diversions of consideration	14, 15, 16, 18, 19, 20, 22, 23, 24, 26	13, 17, 21, 25	14	13-26
3	Academic Procrastination due to students social factors regarding procrastination	27, 28, 29, 31, 32, 33, 34, 36	30, 35	10	27-36
4	Academic Procrastination due to students Time management	37, 39, 41, 42, 43, 44, 45, 46	38, 40	10	37-46
5	Academic Procrastination due to students Personal initiative	47, 48, 49, 51, 52, 53	50, 54	8	47-54
6	Academic Procrastination due to students Laziness	55, 56, 57, 58, 59, 60, 62, 63, 64, 65	61	11	55-65
Total		54	11	65	

Table 2: Dimension wise distribution of statements in the preliminary draft of Academic Procrastination Scale

Try out of the scale

The first draft of Academic Procrastination containing 65 items was administrated to 100 senior secondary students of SEABA international school, Lehragaga, district Sangrur of Punjab. The scale was administered after giving proper instructions to the respondents.

The data collected was used for item analysis of the academic Procrastination scale

Item analysis

Item discrimination index was used as a criterion for accepting or rejecting the items. Item discrimination index gives the extent to which the given items discriminate among high and low group. To ascertain whether an item differentiate between high and low groups item wise t-ratios were worked out between high and low group. High and low groups were formed by employing Kelley's dichotomy method. Kelly (1939) showed that the most efficient division to use was the top and bottom 27% tails. This technique was followed for the present scale. The responses of 100 students were scored and obtained scores were arranged in descending order of their performance (from highest total score to the lowest total score). On the basis of total scores, 27 % top scores formed the high group and 27% bottom scores formed the low group were taken into consideration for measuring significance of difference of means to the item validity. The basis of item selection was discrimination index. The Item wise t-ratios were also computed between two groups (Table: 3).

Item No.	t-value	Remarks	Item No.	t-value	Remarks	Item No.	t-value	Remarks	Item No.	t-value	Remarks
1	3.02	Accepted	21	7.56	Accepted	41	8.92	Accepted	61	5.19	Accepted
2	5.31	Accepted	22	5.43	Accepted	42	9.69	Accepted	62	5.20	Accepted
3	-0.21	Rejected	23	8.74	Accepted	43	8.22	Accepted	63	5.01	Accepted
4	-1.27	Rejected	24	4.91	Accepted	44	13.84	Accepted	64	5.68	Accepted
5	-0.74	Rejected	25	10.06	Accepted	45	12.52	Accepted	65	3.95	Accepted
6	4.50	Accepted	26	9.10	Accepted	46	9.43	Accepted			
7	-0.30	Rejected	27	7.68	Accepted	47	7.28	Accepted			
8	6.34	Accepted	28	3.78	Accepted	48	7.25	Accepted			
9	3.87	Accepted	29	7.74	Accepted	49	3.90	Accepted			
10	6.39	Accepted	30	7.28	Accepted	50	4.55	Accepted			
11	-2.04	Rejected	31	4.19	Accepted	51	7.10	Accepted			
12	-1.72	Rejected	32	5.75	Accepted	52	6.96	Accepted			
13	6.36	Accepted	33	4.17	Accepted	53	5.86	Accepted			
14	5.89	Accepted	34	4.58	Accepted	54	10.19	Accepted			
15	6.48	Accepted	35	8.68	Accepted	55	8.09	Accepted			
16	4.96	Accepted	36	8.57	Accepted	56	9.30	Accepted			
17	6.24	Accepted	37	7.53	Accepted	57	2.36	Rejected			
18	11.37	Accepted	38	7.39	Accepted	58	11.49	Accepted			
19	6.80	Accepted	39	6.12	Accepted	59	7.32	Accepted			
20	1.48	Rejected	40	7.79	Accepted	60	7.25	Accepted			

Table 3: Showing Item wise t-ratios in the first draft of Academic Procrastination Scale

Selection of items and preparation of the final draft

The Final Draft of Academic Procrastination Scale was selected on the basis of item analysis used for obtaining 't' values for each item. The t-values ≥ (greater or less than) 2.58 was considered to be significant at 0.01 level of significance. Out of 65 items, 8 items with insignificant t-ratios (3,4,5,7,11,12,20,57) were rejected. Remaining 57 items with significant t-ratio were subject further to the following selection criteria i.e:

i. Mean score of high scoring group being quite high and low scoring group being quite low.

ii. The Mean difference between values of high and low scoring groups along with t-values testing significance of mean difference being appreciably high.

Further 12 items were not considered to be included in the final draft of the scale. Eventually 45 items fulfilling the selection criteria were retained in the first selected in the final draft of Academic Procrastination Scale (Table: 4) out of which 34 positive statements and 11 negative statements were included.

S. No.	Name of the Dimensions	Dimension	No. of Positive items	Serial No. of positive items	No. of negative items	Serial no of negative items	Total No. of items	Range of scores
1	Psychological beliefs regarding abilities	A	2	1, 2	1	3	3	15
2	Distractions/ diversions of consideration	B	7	5, 7, 8, 10, 11, 12, 14	4	4, 6, 9, 13`	11	55
3	Social factors regarding procrastination	C	4	15, 16, 18, 20	2	17, 19	6	30
4	Time Management	D	8	21, 23, 25, 26, 27, 28, 29, 30	2	22, 24	10	50
5	Personal Initiative	E	5	31, 32, 34, 35, 36	1	33	6	30
6	Laziness	F	8	37, 38, 39, 40, 41, 43, 44, 45	1	42	9	45
Total Items				**34**	**11**		**45**	**225**

Table 4: Dimensions-wise range of scores on Academic Procrastination Scale

Scoring procedure

Each item has a response option on Likert's 5 points continuum viz, Strongly Agree, Agree, Undecided (neither disagree nor agree), Disagree and Strongly Disagree. The items measuring responses on Five-point Likert scale were given scoring as by assigning 1,2,3,4,5 values for the positive worded statements. It was reversed for negative statements i.e. 5,4,3,2,1. The scores thus obtained must be added together to yield the total score of an individual.

The range of scores on Academic Procrastination Scale is from 45 to 225. Lowest score explicit low level of Academic Procrastination & high score showing higher Academic Procrastination among adolescents.

Norms

Kelly's formula was used to set the norms of the scale. The scores of the academic procrastination scale were divided into three categories i.e., high scores, average scores and low scores. According to this criterion, top 27% cases were considered in high scores and bottom 27% scores were considered in low scores. The rest of the students came under average scores.

High scores (150 and above)
Average scores (100-150)
Low score (100 and below)

Standardization phase

Determination of the Reliability of the Scale

Reliability of a tool refers to the dependability of consistency of the measures provided by it. It refers to the accuracy of the data in the sense of their stability or precision. The test-retest method was used to estimate the reliability of the scale. The final draft of the scale was administered to 100 students belonging to senior secondary schools of Ludhiana. Two government senior Secondary Schools Haibowal Khurd, Barewal, Ludhiana, Punjab were selected randomly from the target population. The same scale was again administered to the same students under the similar conditions after the gap of three weeks and their product moment co-efficient of correlation between two sets of scores was computed. The co-efficient of correlation between two scores is 0.84 which is fairly high to testify the soundness of the scale. The reliability was also made using estimates Cronbach's coefficient alpha, which came out to be 0.86. Both estimates reveal high reliability of the scale.

Validity of the Scale

Validity refers to the ability of a test to measure what it is supposed to measure. The foremost requirement of any valid test is that it must be highly reliable and it is fulfilled as present scale showed fairly high reliability coefficient. According to Anastasi (1951) "the question of test validity concerns what the test measures and how well it does so". For present scale, content validity is established by a logical examination of content of the test. Anastasi (1988) defined content validity as, "it involves essentially the systematic examination of the test content to determine whether it covers a representative sample of the behaviour domain to be measured." Content validity of a test is examined in two ways:

- by expert's judgment
- by statistical analysis

As regards of its content validity, the scale was given to the five experts chosen from field of Education obtaining their verdict on validity. The concurrent validity of the scale was assured by evaluation from subject experts.

Setting of the time limit for the test

The time limit is not fixed for the current test as it's not a speed test. The average time taken by 75 percent of examinees to complete the test was fixed as the duration of the test which comes out to be 35 minutes including the time for reading instruction for responding to the whole test.

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